

**POSITION DUTY STATEMENT**

PM-0924 (REV 3/2006)

<b>CLASSIFICATION TITLE</b> Transportation Engineer Technician	<b>DISTRICT/DIVISION/OFFICE</b> Eureka Materials Lab	
<b>WORKING TITLE</b> Material Tester	<b>POSITION NUMBER</b> 927-502-3175-	<b>EFFECTIVE DATE</b> August 2010

**As a valued member of the Caltrans team, you make it possible for the Department to improve the mobility across California by being innovative and flexible; reporting to work as scheduled; working cooperatively with team members and others; and treating others fairly, honestly and with respect. Your efforts are important to each member of the team, as well as those we serve.**

**GENERAL STATEMENT:** Under the general direction of the District Materials Engineer, a Senior Transportation Engineer: sample, test, and analyze materials used in roadway construction; collect, record, and analyze data from materials and projects; and assist in the evaluation and design of materials used for roadways.

**TYPICAL DUTIES:****PERCENTAGE**Essential (E)/Marginal (M)<sup>1</sup>**JOB DESCRIPTION**

- 60% (E) Sample and test, in accordance with California Test Methods, Standard Specifications, Special Provisions, and the Construction Manual, materials used in roadway construction. This will include earthen materials, aggregates, asphalts, cements, epoxies, polymers, and other materials.
- 20%(E) Prepare, organize, and maintain, records and forms associated with sampling, testing, and analysis of materials.
- 20%(M) Plan and perform field investigations to examine, sample, and test existing roadway features, both before and after project construction. Assist in preparing recommendations for design, as well as forensic analysis of materials performance, based on the field investigations.

**SUPERVISION EXERCISED OVER OTHERS:**

This position does not supervise staff, but the individual may act as a lead worker for other staff.

<sup>1</sup> ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned  
MARGINAL FUNCTIONS are the minor tasks of the position that can be assigned to others

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### **KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS:**

**Knowledge of:** Caltrans, AASHTO and ASTM test methods; Mechanical properties of soils, aggregates, and common roadway construction materials; Material sampling techniques; Standards and Practices of materials as practiced by the Department and the engineering profession; and Caltrans Specifications and Special Provisions.

**Abilities:** Perform math (algebra and basic trigonometry). Visual, auditory, and olfactory skills, adequate to distinguish sensory properties of materials and to work safely in a busy lab. Written and oral communication skills. Work independently. Prioritize and manage tasks. Literacy in personal computers and commonly used software, including Microsoft Word and Excel. Independent decision making, based on engineering principles and the analysis of data. Establish and maintain professional, amiable relationships with coworkers, other employees, and the public.

**Analytical Requirements:** Interpret sampling and testing data, and apply the results to recommend roadway engineering solutions.

### **CONSEQUENCE OF ERROR/RESPONSIBILITY FOR DECISIONS:**

Improper sampling and testing technique, or poor analysis of their results, can result in poorly designed or constructed roadway facilities, in turn leading to reduced safety for the traveling public, increased direct costs to the Department for corrective work, and increased indirect costs through liability.

Poor planning, prioritizing, and managing of all tasks may result in increased rework costs.

Poor technique in the field or the lab can result in reduced safety for coworkers and the public.

### **PUBLIC AND INTERNAL CONTACTS:**

The incumbent must maintain a professional working relationship with Regional and District staff, Headquarters personnel, and other agencies. Most interaction will be with other lab personnel, and with construction field staff.

### **PHYSICAL, MENTAL AND EMOTIONAL REQUIREMENTS:**

Employee will be required to stand for long periods of time, often on a concrete floor, while operating various testing equipment. Needs to repeatedly lift and carry samples of materials, which weigh up to 50 pounds. Must sit for long periods of time, while using a keyboard and video display. Employee must be congenial and tactful when dealing with others, while effectively accomplishing tasks. Must be team-oriented. Frequent telephone communication is common. Neat handwriting is required, for completing reports and labeling samples.

### **WORK ENVIRONMENT:**

Employee will work in a climate-controlled office under artificial lighting. Employee will be exposed to dirt, noise, asphalt, solvents, and other materials. Field trips will require walking and climbing on uneven surfaces, short periods of exposure to heat or cold, and working around live traffic and heavy equipment. Some night work will be necessary and the work shift may vary depending on workload. Out of town travel may be required.

**ADA Notice:** For individuals with sensory disabilities, this document is available in alternate formats. For information call (916) 654-6410 or TDD (916) 654-3880 or write Records and Forms Management, 1120 N Street, MS-89, Sacramento, CA 95814.

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I have read, and understand the duties listed above. If you believe you may require accommodation, please discuss this with your hiring supervisor.

EMPLOYEE (Print)	DATE
EMPLOYEE (Signature)	DATE

I have discussed with and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)	DATE
SUPERVISOR (Signature)	DATE